Contribution ID: 2b01cbef-f750-4101-8f27-0703d8e26627
Date: 09/02/2021 16:24:47

Consultation on the Review of Directive 2018/2001/EU on the promotion of the use of energy from renewable sources

Fields marked with * are mandatory.

Introduction

This consultation aims to collect views and suggestions from stakeholders and citizens in view of the possible proposal for a revision of Directive 2018/2001/EU on the promotion of the use of renewable energy (RED II), planned for 2021.
Renewable energy is produced using the earth's natural resources, like sunlight, wind, water resources (rivers, tides and waves), heat from the earth's surface, or biomass. Using renewable energy, instead of fossil fuels, substantially reduces the emission of greenhouse gases, which is why renewable energy is also referred to as 'clean energy'.
Today, the energy sector is responsible for more than 75% of the EU GHG emissions, so increased uptake of renewable energy alongside energy efficiency has a key role to play in reducing GHG emissions in a cost-effective way. More energy from renewable sources also enhances energy security, creates growth and jobs, reduces air pollution when not based in combustion and strengthens the EU's industrial and technological leadership.
The review of RED II is carried out in the context of the European Green Deal[1] in which the Commission committed itself to review and propose to revise, where necessary," the relevant energy legislation by 2021.
In the European Green Deal the Commission proposed to increase the Union's 2030 greenhouse gas (GHG) reduction target from 40% to at least 50% to 55%, with the objective of climate-neutrality by 2050.
On 17 September 2020, the Commission published its 2030 Climate Target Plan, which presents a new 2030 target of at least 55% net GHG emission reductions compared with 1990 levels on basis of a comprehensive impact assessment. Achieving at least 55% net GHG emissions reductions would require an accelerated clean energy transition with renewable energy seeing its share reaching 38% to 40% of gross final energy consumption by 2030.
This range of 38% to 40% is higher than the binding Union level target for 2030 of at least 32% of energy from renewable energy sources introduced by RED II. It is also higher than the share of renewables, between 33.1% and 33.7%, that would be achieved if Member States complied with the national contributions set in their integrated National Energy and Climate Plans (NECPs) for 2030.
In addition, the Commission has adopted, or will adopt, other strategies containing a number of key actions supporting the increased climate ambition, which could be followed through in the review of REDII. This is the case, for instance, of the Energy System Integration[2] and the Hydrogen Strategies[3], adopted on 8 July 2020, the Renovation Wave Strategy[4], adopted on 14 October 2020, and the Offshore Renewable Energy Strategy, planned for 19 November. In addition, the European Green Deal includes a "Green Oath

to do no harm", in particular by preserving biodiversity and reducing air pollution. To this end, the Commission adopted on 20 May 2020 an EU Biodiversity Strategy for 2030, which also contains commitments of relevance for the REDII review.
The answers to this questionnaire will feed into the review process of RED II, and more in particular into the impact assessment that the Commission will carry out to assess whether a revision is needed and what revision would be the most appropriate. No evaluation of RED II will be done, since this Directive, adopted in December 2018, has not yet been transposed and implemented by Member States (its transposition deadline is on 30 June 2021), and a full-fledged evaluation of Directive 2009/28/EC (RED I) was done in 2016 when preparing the proposal for RED II.
The questions are formulated to respect the requirements of the Better Regulation rules[5]. The questions are divided into different sections: questions about the identity of respondents, general questions on revising RED II, questions on transversal elements derived from the Energy System Integration and Hydrogen Strategies, and technical questions on specific aspects of RED II, including questions on buildings and offshore renewables, in line with the Renovation Wave and the Offshore Renewable Energy Strategy. If you don't have an opinion on a question, do not reply.

[1] COM(2019) 640 final

[2] https://ec.europa.eu/energy/sites/ener/files/energy_system_integration_strategy_.pdf

[3] https://ec.europa.eu/energy/sites/ener/files/hydrogen_strategy.pdf

[4] https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/renovation-wave_en#documents

[5] https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how_en

NB: There is a session timeout for the submission of your contribution after 60 minutes; this is an automatic security feature. In order to avoid any loss of data, do not forget to use the "Save as Draft" option on the top right side of your screen before the 60 minutes expire. You can subsequently resume work on your contribution, and submit once completed.

Please note that this questionnaire will be available in all EU-languages as from 09/12/2020.

About you

* Language of my contribution

- ○ Bulgarian
- ○ Croatian
- ○ Czech
- ○ Danish
- ○ Dutch
- ◉ English
- ○ Estonian
- ○ Finnish
- ○ French
- ○ German
- ○ Greek

- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese
- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

* I am giving my contribution as
  - Academic/research institution
  - Business association
  - Company/business organisation
  - Consumer organisation
  - EU citizen
  - Environmental organisation
  - Non-EU citizen
  - Non-governmental organisation (NGO)
  - (•) Public authority
  - Trade union
  - Other

* First name

Lisa

* Surname

Sanderink

* Email (this won't be published)

l.sanderink1@minezk.nl

* Scope

- ( ) International
- ( ) Local
- (•) National
- ( ) Regional

* Level of governance

- ( ) Parliament
- (•) Authority
- ( ) Agency

* Organisation name

255 character(s) maximum

Ministry of Economic Affairs and Climate Policy, Government of the Netherlands

* Organisation size

- ( ) Micro (1 to 9 employees)
- ( ) Small (10 to 49 employees)
- ( ) Medium (50 to 249 employees)
- (•) Large (250 or more)

Transparency register number

255 character(s) maximum

Check if your organisation is on the transparency register. It's a voluntary database for organisations seeking to influence EU decision-making.

* Country of origin

Please add your country of origin, or that of your organisation.

( ) Afghanistan	( ) Djibouti	( ) Libya	( ) Saint Martin
( ) Åland Islands	( ) Dominica	( ) Liechtenstein	( ) Saint Pierre and Miquelon
( ) Albania	( ) Dominican Republic	( ) Lithuania	( ) Saint Vincent and the Grenadines
( ) Algeria	( ) Ecuador	( ) Luxembourg	( ) Samoa

- American Samoa
- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bermuda
- Bhutan
- Bolivia
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Falkland Islands
- Faroe Islands
- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
- Gabon
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Greenland
- Grenada
- Macau
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar /Burma
- Namibia
- San Marino
- São Tomé and Príncipe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden

- Bonaire Saint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Brunei
- Bulgaria
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue
- Norfolk Island
- Northern Mariana Islands
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Papua New Guinea
- Paraguay
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- The Gambia
- Timor-Leste
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom

- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Czechia
- Democratic Republic of the Congo
- Denmark
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Lebanon
- Lesotho
- Liberia
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russia
- Rwanda
- Saint Barthélemy
- Saint Helena Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
- Yemen
- Zambia
- Zimbabwe

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. **Fo r the purpose of transparency, the type of respondent (for example, 'business association, 'consumer association', 'EU citizen') country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.** Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

* Contribution publication privacy settings

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

- (●) **Anonymous**
  Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.
- ( ) **Public**
  Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

☑ I agree with the personal data protection provisions

1. General questions on the review and possible revision of the Renewable Energy Directive

REDII provides a general framework for the promotion of energy from renewable within the Union in order to ensure the achievement of the binding EU renewable energy target of at least 32% by 2030. It sets out rules on support schemes for renewable energy, on guarantees of origin for energy from renewable sources, on administrative procedures, on the integration of renewable sources in buildings, on selfconsumption and renewable energy communities, and on renewable energy in heating and cooling and in transport. It also sets out sustainability and GHG emissions criteria for bioenergy.
On 17 September 2020, the Commission published its 2030 Climate Target Plan, where it presents an at least 55% net target for GHG emissions reduction in 2030. As result of this increased ambition, the plan indicates that renewables should represent from 38% to 40% of the gross final energy consumption in 2030.

1.1 How important do you think renewable energy will be in delivering the EU's higher climate ambition for 2030 and carbon neutrality by 2050?

- ( ) Very important
- (●) Important
- ( ) Not very important
- ( ) Not important

1.2 Do you think REDII needs to be modified? (multiple answers possible)

- [ ] Yes, it needs to be more ambitious as result of the higher climate ambition in the European Green Deal and Climate Target Plan
- [ ] Yes, it needs to be more prescriptive to ensure that the EU renewable energy objectives are reached
- [ ] Yes, it needs to be less prescriptive, giving Member States more freedom on how to achieve their renewable energy objectives
- [x] Yes, but only those adjustments required to reflect the European Green Deal objectives
- [ ] No, it strikes the right balance as it is
- [ ] No, even if there could be areas of improvement, legislation should not be modified so shortly after its adoption
- [x] Other

Please specify

3000 character(s) maximum

The Dutch authorities welcome the European Green Deal and acknowledge the key role of renewable energy in achieving its targets. A modification of RED II should mostly be in line with achieving the CO2 reduction target in a cost-effective manner and should take the functioning of the ETS into account, for example when calculating the CO2 effects of RFNBO production. Therefore, the Dutch authorities advocate for technology-neutrality as a general rule and thus freedom for member states to arrive at the most optimal mix of measures and technologies to achieve this CO2 reduction target, and allow for higher nationally set climate ambitions in specific sectors.

The focus should thus be on how to reduce GHG with an increasing amount of renewable energy. Increasing renewable energy does not necessarily have a GHG-reducing effect and could impact the system stability. Technologies enabling flexibility through storage and sector coupling can indirectly facilitate reduction of GHG. This should be taken into account in the revision of RED II. This way it would better fit the 55% GHG-reduction target of the Green deal and the Paris agreement.

1.3 If you answered ‘yes’ to the previous question, which parts of RED II do you think should be amended? (multiple answers possible)

- [ ] Overall Union target of at least 32% for renewable energy for 2030
- [ ] Target of at least 14% for renewable energy in transport by 2030.
- [ ] Indicative target of an annual increase of 1.3% point for renewable energy used in heating and cooling
- [ ]

- [ ] Indicative target of an annual increase of 1% point for renewable energy used in district heating and cooling and provisions on access to district heating networks
- [ ] Provisions on how to design support schemes for electricity from renewable sources
- [ ] Provisions on cooperation mechanisms between Member States
- [x] Provisions on how to promote renewable energy in buildings
- [ ] Provisions simplifying administrative procedures for renewables project developers
- [x] Requirements on guarantees of origin for energy from renewable sources
- [ ] Provisions on self-consumption and renewable energy communities
- [x] Sustainability and GHG emission saving criteria for energy produced from biomass
- [x] Provisions on sustainable low carbon fuels such as low-carbon hydrogen and synthetic fuels with significantly reduced full life-cycle greenhouse gas emissions compared to existing production
- [x] Other

Please specify

3000 character(s) maximum

The Dutch authorities have never been an advocate for specific targets for renewable energy. However, a revision of the 14% target for renewable energy in transport for 2030 would be welcome, as the mandate has proven to be very effective for making transport more sustainable. In doing so a revision (for transport) should take into account the following aspects:

1. The obligation for transport should reflect the sectors that are subject to the obligation and also count towards the Paris agreement. Sectors such as aviation and maritime should become more sustainable via sector specific policies such as a blending obligation for aviation or through initiatives such as FuelEU, while taking into account the RED II criteria.

2. A revision to strengthen the criteria is good. However, more importantly a stronger focus for securing the criteria is needed. Fraud cases with biodiesel in the Netherlands showed that a stronger role for public oversight towards the links in the supply chain within the member states is needed for renewable transport fuels to prevent fraud and to strengthen the current framework of certification. In addition, the revision should also always look towards strengthening private supervision / certification as well.

3. More support on RFNBO's is needed, a clear distinction between fossil based and renewable energy based fuels is needed. Since RCF are no renewables it is questionable if they should be part of the RED support scheme, but needs a separate tool in low carbon policy.

With regards to guarantees of origin, we are not pleading for stricter requirements and provisions, but for smarter ones. Articles related to guarantees of origin currently remain unclear and ambiguous, and do not imply an EU-wide approach, while this is desirable for the tradability of guarantees of origin and the overall

REDII.

With regards to biomass, we advocate for more prescribed, robust and uniform systems for certification, verification and public supervision, because there is currently room for interpretation.

Finally we advocate that Member States should have the freedom to allow and/or promote the use of low-carbon fuels for the contribution towards the RED II targets and differentiate this choice for each specific sector of the Directive. Low-carbon fuels can be beneficial for certain sectors and targets, even if they are not entirely renewable at the moment (such as hydrogen produced with electricity that is predominantly but not entirely renewable), as long as supported projects lead to sufficient emission reductions on a system level over their entire lifespan. Provided that it contributes to the path towards a climate-neutral economy.

Please explain your answer

3000 character(s) maximum

1.4 In which sectors do you think additional efforts to increase the use of renewable energy are most needed for a potentially higher renewables target for 2030? (multiple answers possible)

- [ ] Electricity
- [ ] Gas
- [x] Heating and cooling
- [ ] District heating and cooling
- [x] Buildings
- [ ] Services (including ICT)
- [x] Industry
- [x] Transport
- [ ] Agriculture
- [x] Other

Please specify

3000 character(s) maximum

The overall challenge is to increase the supply of renewable energy and materials, and more importantly, to prepare consumers for the use of a more diverse range of energy carriers (e.g. electric vehicles for transport).

In the transition towards a climate neutral economy, all sectors will have to make increasingly use of renewable energy. The question is where to establish a higher renewable target for 2030, as there are interdependencies between supply and demand-sectors that are interdependent on the affordable availability

of renewable energy and/or dependent on the demand for renewable energy. Whether this will be stimulated by a potentially higher renewable target for 2030 for specific sectors is questionable. it is however important to think about putting the right incentives in place to stimulate these sectors congruently.

1.5 Do you see scope for simplifying RED II or reducing regulatory burdens, including administrative burdens?

3000 character(s) maximum

Yes, overall more harmonization can be created towards definitions used in the RED II for mass balance, residues, waste, by-products et cetera, perhaps within the Union database. A more specific suggestion is to remove most of the more detailed provisions in articles 15-18, 20-24; remove provisions that double with other legislation (e.g. 3.3, 32); and remove provisions with options for member states that are still possible without mentioning them in the RED (e.g. 16.8, 17.2, 23.3-5). Finally the additionality requirements for the use of RFNBOs in transport that are currently under development appear to become rather burdensome for individual projects to adhere to, therefore we would advocate to examine simplified alternatives such as additionality requirements on a national level or at least implement a transition period with less stringent additionality requirements to prevent hindrance for market development.

1.6 Do you think the level of the 2030 Union target for renewable energy should be raised within the range indicated in the 2030 Climate Target Plan (38 - 40%)?

- ○ Yes
- ○ No, it should be higher than 40%
- ◉ Other

Please specify

3000 character(s) maximum

If the Union target is increased, Member States should always have the freedom to prioritize cost effective CO2 reductions over renewable energy production in their climate policies. The Union target should only be raised if it is in line with a cost effective path to the 2030 target for CO2 reduction. Nonetheless, for specific sectors such as transport, an increased renewable energy target should be considered even when the overall target does not increase.

1.7 Should the overall renewable target be binding at EU level or at national level?

- ○ At both levels
- ○ Only at EU level
- ○ Only at national level
- ◉ At neither of the levels

2. Technical questions on Transversal Energy System Integration Enablers

In order to achieve climate neutrality cost-effectively the energy system needs to operate in a more integrated manner, across multiple energy carriers, infrastructures and consumption sectors. The Energy System Integration and Hydrogen Strategies published by the Commission in July set the vision to build an integrated energy system fit for climate-neutrality and turn hydrogen into a viable solution. This vision is established around three main pillars: 1) a more circular energy system, with 'energy-efficiency-first' at its core; 2) accelerating the electrification of energy demand, building on a largely renewables-based energy system; 3) promote renewable and low-carbon fuels, including hydrogen, for hard-to decarbonise sectors.

2.1 How important do you consider the following measures to build a more integrated energy system?

	Very important	Important	Not very important	Not important
Apply the Energy-Efficiency-First principle across the whole energy system	○	○	○	◉
Increase the mobilisation of waste heat, for instance from industry or data centres	○	○	◉	○
Accelerate the deployment of smart district heating and cooling networks that use renewable energy and thermal storage	◉	○	○	○
Accelerate the use of renewable energy in buildings	○	◉	○	○
Accelerate the use of renewable electricity in industry	○	○	◉	○
Accelerate the use of renewable electricity in the transport sector	○	◉	○	○
Accelerate the production of renewable liquid fuels	○	◉	○	○
Accelerate the production of sustainable biogas and biomethane	○	◉	○	○
Increase the production and use of renewable hydrogen	◉	○	○	○
Accelerate the digitalisation of the energy system	◉	○	○	○

Any other view or ideas related to the use of renewables that could contribute to building a more integrated energy system? Please specify.

3000 character(s) maximum

Promoting energy-efficiency requires clear regulation and clearly targeted instruments, not abstract cross-references or overlap such as RED II article 18.2 or article 15.1, instead of applying the Energy-Efficiency-First principle across the whole energy system and/or integrating it into the RED. Also: compare techniques

on their entire climate footprint, not merely their energy footprint.

System integration is a matter of decarbonizing both electricity and other energy carriers. As most of the current energy use of our industries comes in the use of other energy carriers, it is essential to develop a strong stimulus for the production and use of low-carbon energy carriers and electrification of end use sectors. Electrolysis can play a vital role in this even if the electricity used is not entirely renewable. Promoting the use of low-carbon fuels and energy carriers increases market uptake of energy carriers such as hydrogen and thus facilitates sector coupling. Low-carbon hydrogen and similar energy carriers will pave the way for a future with energy carriers produced predominantly from renewable sources.

A renewable integrated energy system falls or stands with the sufficient and affordable amount of renewable energy, in the form of electricity or other energy carriers. End users are largely dependent on energy producers to make their energy more sustainable, while large scale production of renewable electricity depends on sufficient electricity demand from end users.

The Energy System Integration Strategy recommends to advance towards a more circular energy system, with ‘energy-efficiency-first’ at its core.

2.2 How do you think the energy efficiency first principle should be reflected in the Renewable Energy Directive?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Promote the use of renewables in low-temperature efficient heating systems	◉	○	○	○
Promote the production of heat directly from renewable energy or waste heat with minimal energy transformation	○	◉	○	○
Promote the installation of thermal energy storage together with the renewable heat generator	○	○	◉	○
Promote self-consumption of renewable thermal heat	○	◉	○	○
Promote the reuse of waste heat from industrial sites, data centres, or other sources	○	◉	○	○
Promote the use of renewable electricity in end-uses across all sectors where this is cost-efficient	◉	○	○	○
Prioritise the efficient use of renewable electricity by taking into account conversion efficiencies of renewable electricity in different end uses (eg. heat pumps have better efficiency than using hydrogen for space heating)	○	○	◉	○

Provide information to consumers about the energy content of the energy they are purchasing, across carriers and sectors	○	◉	○	○
Prioritise the use of available renewable energy carriers in those end use sectors where they have the greatest decarbonisation impact for each unit of energy consumed	○	◉	○	○

Other? Please specify

3000 character(s) maximum

2.3 How appropriate do you think the following measures would be in supporting the electrification of energy consumption?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Sectorial targets for electrification of end-use sectors	○	○	◉	○
Further specific measures for electrification of buildings	○	○	○	◉
Further specific measures for electrification of transport	○	◉	○	○
Further specific measures for electrification of industry	○	○	○	◉
Further specific measures for consumer empowerment	○	◉	○	○
Guidance to Member States to address the high charges and levies borne by electricity and ensure the consistency of non-energy price components across energy carriers	○	○	○	◉
Align taxation of energy products and electricity with EU Climate and Energy Policy goals	○	◉	○	○
Further measures to foster digitalisation	◉	○	○	○
Further development of interconnections	◉	○	○	○
Further development of transmission and distribution networks	◉	○	○	○

Other? Please specify

3000 character(s) maximum

In order to prevent double counting and realize emission reductions the electrification of the transport sector (or use of electricity-based hydrogen) should mostly be based on additional renewable electricity production, as emissions reductions of the current share of renewable electricity are already counted towards the general target. This requires clear and workable guidelines or certificates that describe which electricity production is additional and which is not; the system should be easy to implement for Member States and easy to use for project developers.

Provide room for more national and EU support for electrification techniques, even though the used electricity is not entirely renewable, as long as supported electrification projects lead to sufficient emission reductions on a system level over their entire lifespan.

Going beyond and building on the existing certification and traceability framework, the Energy System Integration Strategy and the Hydrogen Strategy state that the Commission will consider additional measures to support renewable and low-carbon fuels, possibly through minimum shares or quotas in specific end-use sectors (including aviation and maritime), through the revision of REDII and building on its sectoral targets. Renewable fuels cover sustainable biofuels, bioliquids and biomass fuels, as well as renewable hydrogen and renewable synthetic fuels. Low carbon fuels cover hydrogen and synthetic fuels produced through a variety of processes, but with significantly reduced full life-cycle greenhouse gas emissions compared to existing production. According to the Strategies, the support regime for hydrogen will be more targeted, allowing shares or quota only for renewable hydrogen. They also state that the Commission will propose a comprehensive terminology for all renewable and low-carbon fuels and a European system of certification of such fuels, based notably on full life cycle greenhouse gas emission
savings and sustainability criteria, building on existing provisions including in the Renewable Energy Directive.

2.4 How do you consider that “low carbon” fuels that are not renewable but provide significant GHG emissions reduction compared to fossil fuels, such as non renewable hydrogen and synthetic fuels with significantly reduced full life-cycle greenhouse gas emissions compared to existing production, should be treated?

- ○ They should be promoted equally to renewable fuels and thus be mandatorily integrated in any end-use target or quota
- ○ They should be promoted but less than renewable fuels
- ◉ Member States should have the freedom to decide whether to promote them alongside renewable fuels in any end-use target or quota
- ○ They should not be promoted

2.5 Do you think the use of hydrogen and e-fuels produced from hydrogen should be encouraged (multiple answers possible)?

- [ ] Yes, regardless of the source used to produce them
- [ ] Yes, but only if produced from renewable energy
- [ ] Yes, but under a certain level of conversion losses
- [x] Yes, but only if produced and used in a way that leads to no or low GHG emissions along their life cycle, compared to the fossil fuel they are replacing
- [ ] Yes, but only when its whole value chain is more energy efficient in comparison to alternative energy sources and carriers
- [ ] Yes, but only for limited uses where no other alternatives are feasible
- [ ] No
- [x] Other

Please specify

3000 character(s) maximum

Yes, regardless of the source used to produce them as long as supported projects lead to emission reductions on a system level over their entire lifespan. Provided that it contributes towards the path to renewable hydrogen and renewable e-fuels.

2.6 How effective do you think the following measures would be in supporting the uptake of RES and low-carbon fuels?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Minimum shares or quotas of renewable and low carbon fuels, including renewable hydrogen, in specific end-use sectors	○	◉	○	○
Carbon Contracts for difference[1]	○	◉	○	○
Supply-side quotas	○	◉	○	○
Market based support schemes	○	◉	○	○
Supply-side GHG-based targets	○	◉	○	○

[1] Carbon contracts for difference are long term contract with a public counterpart that would remunerate the investor by paying the difference between the CO2 strike price and the actual CO2 price in the ETS in an explicit way, bridging the cost gap compared to conventional fossil-based production.

Other? Please specify

3000 character(s) maximum

Supply-side quota's and market based support schemes could support low carbon policies provided that they are based on a public governed sustainability framework, at least for specific sectors.

2.7 How important do you think the following principles are for a robust and comprehensive certification and verification system covering all renewable and low carbon fuels? (Multiple answers possible)

	Very important	Important	Not very important	Not important
The certification and verification system should cover all end-use sectors	◉	○	○	○
The certification and verification system should cover all renewable and low carbon fuels	◉	○	○	○
The certification and verification system should demonstrate that renewable hydrogen and renewable synthetic fuels are produced from additional renewable electricity	○	◉	○	○
The certification and verification system should follow as closely as possible the real energy flows and ensure that consumption of renewable and low carbon fuels takes place in certain target sectors (e. g. transport) in the Union, for instance by using a mass balance system.	○	◉	○	○
The certification and verification system does not need to follow the real energy flows as it is sufficient to incentivise the promotion of renewable and low carbon fuels independently of where they are consumed in the Union, for instance by using a bookand-claim approach such as for Guarantees of Origin.	○	○	◉	○
The certification and verification system should follow as closely as possible the real energy flows only for liquid renewable and low carbon fuels, but allowing a book-andclaim approach such as for Guarantees of Origin is more appropriate for gaseous renewable and low carbon fuels injected into the natural gas grid	○	◉	○	○
The certification and verification system should ensure that the GHG impact of energy conversions along the value chain (e.g. renewable electricity				

used to produce renewable hydrogen) are fully taken into consideration, while avoiding double counting	◉	○	○	○
Where CO2 is used in the production of a fuel, the certification system should distinguish between fuels using CO2 of fossil origin and CO2 of non-fossil origin	◉	○	○	○

Other principles? Please explain

3000 character(s) maximum

Mass balance rules in art 30 are the outcome of complex discussion on system integrity statistical rules and practical applications. The good questions as mentioned above deserve a more nuanced consideration than the options provided.

The certification and verification system should follow as closely as possible the real energy flows and ensure that consumption of renewable and low carbon fuels takes place in certain target sectors (e.g. transport) in the Union for instance by using a mass balance system. For gaseous carriers transported through the natural gas grid, a book and claim approach may be more suitable.

A certification and verification system in any form should follow a flexible approach to implementation, for example through a transition period in which important aspects of the system are tested in order to get a good idea of the system's effects on market development.

2.8 In the current system, only electricity suppliers are required to certify to consumers the share of energy from renewable sources by guarantees of origin. Do you think that this obligation shall be extended to suppliers of renewable fuels (such as biogas, biomethane or renewable hydrogen) as well, and possibly of "low carbon" fuels?

- ○ Yes, for renewable fuels
- ◉ Yes, for renewable fuels and low carbon fuels
- ○ No

2.9 Do you think the cooperation mechanisms set out in RED II should be extended to cover renewable hydrogen regardless of its end use, so that Member States can support renewable hydrogen projects in other Member States and in third countries while counting the energy produced as their own?

- ◉ Yes
- ○

No

Please explain your reply

3000 character(s) maximum

Fits in the aspect of European cooperation in order to reach the target for renewables and GHG-reduction. It also increases the efficiency to reach the targets. Social and sustainability criteria might be needed to consider. Bi- or multilateral cooperation can be useful, but these options should be seen in correlation with the overall targets per member state. Those targets are currently based on differences in domestic potential and not on the options for statistical transfer.

The EU's 2050 decarbonisation scenarios and other international reports suggest that renewables, energy efficiency and electrification will have to deliver most of the required emission reductions. However, carbon capture technologies will potentially be needed to create the negative emissions required to reach climate neutrality and address emissions from hard-to-abate sectors.

2.10 Carbon-capture and storage/usage in the EU should play a prominent role in…

	Strongly agree	Agree	Disagree	Strongly disagree
Decarbonising the power sector	○	○	○	○
Decarbonising energy intensive industries (e.g. chemicals, cement, steel)	◉	○	○	○
Production of hydrogen (i.e. based on natural gas with CCS)	◉	○	○	○
Creating negative emission / carbon removal, e.g. via CCS applied to bioenergy[1] (BECCS) or direct air capture and storage	◉	○	○	○
Providing captured CO2 as a feedstock for other industries	◉	○	○	○

2.11 In addition to how CCS and CCU are treated in other EU legislation, do you think REDII should be revised to encourage the uptake of CCS and CCU?

◉ Yes
○ No

Please specify

3000 character(s) maximum

First of all Member States should have the flexibility to implement CCS in different sectors in line with their decarbonization targets.

The possibility of achieving net negative emissions through the application of carbon capture and geological storage on sustainable bioenergy (BECCS) should be recognized in the RED II Directive. At this moment the REDII does not provide any incentives for achieving net negative emissions in biofuel production. This should be addressed in coordination with other efforts to recognize carbon capture removal technologies in the Green Deal, such as adjustment to the EU Emission Trading Scheme.

In the long term we expect increasing value from a circular economy, making use of CCU in addition to CCS. A range of options is being discussed such as carbon use in building materials (i.e. olivine), producing plastics or for synthetic transport fuels. CCU applications should mainly be encouraged such that they result in permanent and verifiable emission reductions and/or the replacement of virgin material use elsewhere in the chain, in addition to fostering circular economies and industrial symbiosis. This requires suitable life cycle analyses to be conducted for all types of CCU applications, including low carbon fuels in REDII. To do so clarity is needed regarding which alternative process is used in a life cycle assessment to compare the CCU application to. We encourage the Commission to take into account that many methods of performing life cycle assessments exist, and that it may be worth examining if a standardised way of performing these assessments is desirable at European level.

We would also encourage the Commission to be cautious with the assumption that CO2 captured from biomass can replace fossil-derived CO2 in production processes, as the bulk of CO2 used in commercial processes is a by-product of hydrogen production (steam methane reforming), and will therefore continue to be emitted as part of this process regardless of the availability of other sources of CO2. The most immediate solution to reduce emissions is through permanent geological storage.

When reviewing the role of low-carbon fuels in REDII, the integration of direct air capture (DAC) should be considered as a technology for further emission reductions.

3. Technical questions on specific sectors

This section covers specific sectors covered by REDII and asks for your opinion on whether they should be changed/strengthened in order to improve the chances of achieving the EU's 2030 climate ambitions.

3.1 RENEWABLES IN ELECTRICITY

Mobilising private investment for the development in renewables is essential in the context of increased ambition. In REDII, there are new several provisions aiming to promote the use of renewable power purchase agreements (contract under which a natural or legal person agrees to purchase renewable electricity directly from an electricity producer "PPAs").

3.1.1 How would you rank the appropriateness of the following measures in tackling the remaining barriers for the uptake of renewable electricity that matches the expected growth in demand for end- use sectors?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Further foster regional cooperation in the deployment of renewable electricity	◉	○	○	○
Further streamline permitting procedures	○	○	◉	○
Further support the uptake of private renewable PPAs	○	○	○	◉
Establish minimum mandatory green public procurement (GPP) criteria and targets in relation to renewable electricity	○	○	◉	○
Further support the uptake of energy communities and self-consumption	○	○	◉	○

Other? Please specify

3000 character(s) maximum

3.1.2 How do you think regional cooperation in deploying renewables electricity could be further promoted?

3000 character(s) maximum

N.A.

3.1.3 How appropriate do you think the following measure would be in promoting the use of private renewable power purchase agreements?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Financial solutions/instruments	○	○	○	◉
Removing administrative/legal barriers	○	○	○	◉
Creating green labels for buyers of renewables-based products	○	○	○	◉
None, market participants are already actively engaging	◉	○	○	○

Other? Please specify

3000 character(s) maximum

Public authorities, thanks to their purchasing power and often high electricity consumption, can be real drivers for change. RED II does not contain any provisions on renewable energy obligations in public procurement.

3.1.4 Should there be specific obligations for public authorities to contribute to achieving a high level of renewable energy (multiple answers possible)?

- [ ] Yes, all public authorities should be obliged to buy green energy
- [ ] Yes, but only larger public authorities should be obliged to buy green energy
- [ ] Yes, but only if it does not cost more
- [x] Yes, but only if the green tender is likely to trigger investment in additional green energy generation
- [ ] No

Please explain your reply

3000 character(s) maximum

3.1.5 Do you think modifying REDII would be appropriate in order to further promote offshore renewable energy, following the adoption of the EU Offshore Renewable Strategy?

3000 character(s) maximum

3.2 RENEWABLES IN HEATING AND COOLING

Under REDII, Member States must endeavour to increase the share of renewable energy in heating and cooling by an indicative 1.3 percentage point (ppt) per year up to 2030. Sources of waste heat and cold can be counted towards the 1.3 ppt up to 40%, and in Member States where waste heat or cold is not used, the yearly increase that the Member States must endeavour to achieve is 1.1 ppt.

The impact assessment accompanying the 2030 Climate Target Plan indicates that the share of renewable energy in heating and cooling would constitute around 40% in 2030. This would require an increase of the share of renewable energy in heating and cooling in Member States significantly higher than the yearly increase of 1.3 ppt.

3.2.1 How appropriate do you consider the following options for increasing the uptake of renewable energy in heating and cooling?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Increased energy efficiency	○	◉	○	○
Direct renewable heat use (from sustainable biomass, geothermal, solar thermal…)	◉	○	○	○
Direct renewable electricity use (in electric heat pumps using ambient energy)	◉	○	○	○
Use of renewable gases	◉	○	○	○
Use of district heating and cooling networks that can supply in the same system waste heat and renewable heat	◉	○	○	○

Other? Please explain

3000 character(s) maximum

3.2.2 Should the current indicative target of 1.3 ppt (or 1.1 ppt, if waste heat and cold is not used), annual average increase of renewable energy in heating and cooling set for the period of 2021-2030 in Article 23 become a binding target for Member States?

- ○ Yes
- ◉ No

3.2.3 Should the annual average target of 1.3 ppt be increased?

- ○ Yes, to the level leading to the 40% share of renewable energy in heating and cooling indicated in the Climate Target Plan
- ○ Yes, to a lower level than that leading to the 40% share of renewable energy in heating and cooling indicated in the Climate Target Plan
- ○ Yes, to a more ambitious level than that leading to the 40% share of renewable energy in heating and cooling indicated in the Climate Target Plan
- ◉ No

Under REDII, neither renewable electricity nor hydrogen and synthetic fuels produced from renewable electricity that is used for heating and cooling can be counted towards the target for heating and cooling, only thermal heating produced from renewable energy sources.

3.2.4 Do you think renewable electricity used for heating and cooling should be counted towards the target for heating and cooling?

- (●) Yes
- ( ) No

3.2.5 Do you think that renewable hydrogen and synthetic fuels produced using renewable electricity and used in heating and cooling should be counted towards the target for heating and cooling?

- (●) Yes
- ( ) No

The current Article 23 of REDII provides a list of measures that Member States can use to increase the share of renewables in heating and cooling. These are physical incorporation of renewables in energy fuels supplied, direct and indirect mitigation measures (e.g. installation of renewable heating systems), and other policy measures, e.g. fiscal measures and financial incentives.

3.2.6 Do you think the list of measures provided in the Directive that Member States can use to increase the share of renewables in heating and cooling should be expanded or made more detailed?

- ( ) Yes
- (●) No

3.2.7 Do you think these measures should be made binding?

- ( ) Yes
- ( ) Only some of them
- (●) No

3.2.8 How would you rank the appropriateness of the following measures in increasing the share of renewable energy in heating and cooling?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Pricing instruments (taxes, levies and charges)	( )	(●)	( )	( )

EU guidance on support schemes for renewable heating and cooling	○	○	◉	○
Renewable heating and cooling obligation on energy suppliers	○	◉	○	○
Stricter product regulation for heating and cooling appliances to ensure that gradually only renewable and climate neutral heating technologies can be placed on the market	○	◉	○	○
Binding regulations on technical building systems for heating and cooling	○	○	○	◉
Mandatory heat planning and implementation at the appropriate level (local, municipal, regional) to ensure fulfilling the renewable heating and cooling target	○	◉	○	○
Strengthen corporate energy purchase agreements for heating and cooling	○	○	○	◉

Other? Please specify

3000 character(s) maximum

The list of measures provided in the Directive are means to an end (the current 1.3 ppt indicative target). The Netherlands does not support making binding either the end or the means in this respect. Governments should be left freedom in determining their optimum decarbonization pathways.

3.2.9 Which of the following measures do you think could be appropriate to encourage public authorities to identify renewable heating and cooling potentials and plan their exploitation?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Strengthening the obligation to assess renewable potentials for heating and cooling in the frame of the comprehensive heating and cooling assessments under Article 14 (1) of EED and Article 15(4) of REDII	○	◉	○	○
A separate assessment obligation of renewable potentials for heating and cooling under RED II	○	◉	○	○
Mandatory long-term strategies for decarbonising heating and cooling with binding milestones and measures taking into account synergies with other policy				

areas, such as the comprehensive heating and cooling assessments under Article 14 (1) of the EED and the longterm building renovation strategies under Article 2a of the directive amending the EPBD.	○	○	◉	○

Other? Please specify

3000 character(s) maximum

3.3 RENEWABLES IN DISTRICT HEATING AND COOLING

Efficient district heating and cooling can play an important role in mainstreaming renewable energy in heating and cooling. Under REDII Member States must endeavour to increase the share of renewable energy in district heating and cooling by an indicative 1 percent point per year up to 2030. Alternatively, Member States must ensure, subject to limited exceptions, that third party suppliers can connect and sell renewable energy and waste heat or cold to district energy networks. The 1 ppt target of annual average increase in renewables can be fulfilled by waste heat and cold in district heating networks (waste heat flexibility).

3.3.1 Should the current indicative target of 1 ppt annual average increase of renewable energy in district heating and cooling set for the period of 2021-2030 become a binding target?

- ○ Yes
- ◉ No

3.3.2 Should the level of the current indicative target of 1 ppt annual average increase of renewable energy in district heating and cooling be increased?

- ○ Yes
- ◉ No

3.3.3 How would you rank the appropriateness of the following measures in encouraging the use of waste heat and cold by district heating and cooling networks?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate

Obligation for district heating and cooling network operators to connect waste heat and cold suppliers	○	○	◉	○
Obligation for industrial and service sector companies (e.g. data centres) producing significant waste heat and cold to make available their waste heat and cold to district heating and cooling companies	◉	○	○	○
Requirement for the relevant competent authorities to encourage cooperation between industrial and service sector companies	○	○	◉	○
Requirement for the relevant competent authorities to prepare the necessary plans (heat plans, energy plans, energy infrastructures plans, spatial plans, etc.), policies or regulations enabling the feeding of waste heat and cold into district networks	○	◉	○	○
Specific target for waste heat and cold use	○	○	○	◉

Other? Please specify

3000 character(s) maximum

3.3.4 Do you consider that third party access to district heating networks by renewable heat suppliers should be strengthened?

- ○ Yes
- ◉ No

Please explain your reply

3000 character(s) maximum

The focus should be on the entire chain of heat supply, transport and use. The heating companies overseeing this chain have the obligation to work towards zero-emission heating networks. It is their responsibility to match heat supply and demand in an integrated heating network, which can be disrupted by (unregulated) third party access.

3.3.5 Which of the following measures do you think would be appropriate in strengthening the rights of consumers in district heating and cooling networks?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Improve information to consumers on the energy performance and renewable shares of district heating and cooling, including to low-income and vulnerable consumers.	◉	○	○	○
Increased transparency of heat and cold supply prices to consumers and their components (e.g. energy and, network costs, taxes, levies)	◉	○	○	○
Strengthen disconnection [1] rules for consumers	○	◉	○	○
Make it easier for consumers to switch to renewable supplies within a network via either a single buyer model or third party access or guarantees of origin	○	○	◉	○
Make it possible for consumers to feed renewable heat or waste heat and cold into the network (prosumer rights)	○	○	◉	○

[1] RED II allows customers to disconnect from those district heating or cooling systems that are not efficient or do not become efficient by 31 December 2025, in order to produce heating or cooling from renewable sources themselves.

Other? Please specify and/or explain your choice of the previous questions.

3.3.6 How appropriate do you think the following measures are in making district heating and cooling systems be better integrated within the overall energy system?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Better coordination with electricity and gas TSOs and DSOs to plan network investment and integrate flexibility to maximise renewable integration	○	◉	○	○
Removing barriers to renewable thermal energy storage	○	◉	○	○
Promotion of the use of flexible renewable generation capacities (e.g. heat pumps, cogeneration, power to heat)	○	◉	○	○

Better integration of district heating and cooling systems in EU, national and local energy infrastructure planning	○	◉	○	○
Better integration of variable renewable electricity and heat in urban planning	○	◉	○	○

3.4 RENEWABLE ENERGY IN BUILDINGS

Buildings account for 40% of energy use in the EU, and heating and cooling is responsible for around 50-80% of that energy consumption. Three quarters of heating and cooling in buildings is still supplied from fossil fuels. The EU building stock should be carbon-neutral by 2050. The Renovation Wave initiative aims to address the current low renovation rates across the EU and accelerate the transformation of the EU building stock into a highly energy efficient and decarbonised building stock by 2050. Contributing in this perspective, REDII requires Member States to introduce measures in their building regulations and codes to increase the share of energy from renewable sources in the building sector, but does not set any particular target or level for this. On average the percentage use of renewables in buildings is 23.5%.

3.4.1 Do you think that Member States should require a minimum percentage of renewable energy in the energy use of new buildings or buildings subject to major renovation?

- ○ Yes
- ○ Yes, only for new buildings
- ○ Yes, only for buildings subject to major renovation
- ◉ No

3.4.2 If yes, what minimum percentage of energy consumed by a building do you think must come from renewable sources?

- ○ 10%
- ○ 20%
- ○ 30%
- ○ 40%
- ○ 50%
- ○ 100%
- ◉ Other

Please specify

3000 character(s) maximum

Member states should be able to determine the share themselves. Moreover, the renewable energy installed in the building sector should not only be perceived as a relative amount of energy consumption of the individual building. This way energy communities are supported to participate in renewable energy projects in or attached to new buildings or buildings subject to major renovation. Plus, for major renovation of buildings it could be beneficial to set an absolute amount of renewable energy, not a relative amount (%). In the Netherlands for example, we have requirements for the insulation of the façade sections to be renovated in the major renovation of a building. We do not set requirements for the total degree of insulation of the building undergoing major renovation when sections of the façade are not a part of this renovation. Setting a relative amount of renewable energy would lead to a dependence on the total degree of insulation of the building. That is why we chose to require a minimal absolute amount of renewable energy per m² of usable surface (depending on the ratio roof surface / usage surface) when major renovation of buildings takes place. That way, the amount does not dependent on the total degree of insulation of the building. This fits in the national construction regulations better than a relative amount (%). For new buildings we do require a relative (%) minimum amount of renewable energy of the energy consumed, because here we set requirements for the total degree of insulation of the buildings.

To conclude, the Netherlands believes the following is more accurate:
Member States should require a minimum amount of renewable energy in or attached to new buildings or buildings subject to major renovation.

3.4.3 How would you rank the following measures in terms of their appropriateness in ensuring that buildings' heating and cooling systems are increasingly based on renewable energy while fossil fuels are gradually phased out?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Set minimum renewable energy levels (see 3.4.1) in REDII and ensure conformity in building regulations and codes	○	○	○	◉
Simplify permitting and administrative procedures for the integration of renewable energy solutions in buildings	○	◉	○	○
Set minimum renewable energy shares for heating and cooling in national building stocks	○	○	○	◉
Set specific renewable energy requirements at district or neighbourhood levels, i.e. nearly zero-energy districts.	○	○	○	◉
Extend REDII provisions on selfconsumption, applicable to electricity, to heating and cooling	○	○	○	◉
Strengthen consumer information and accessibility of measures to deploy renewables in buildings' heating and	◉	○	○	○

cooling systems, in particular in low-income or vulnerable households				

Other? Please specify

3000 character(s) maximum

Heating systems in building are generally replaced when they break down, usually during winter when it is urgent, leading to suboptimal decisions favouring replacement with the same, generally fossil fuel appliance. A planned replacement of heating systems would enable consumers to make informed choices and prepare the installation of renewable and more efficient heating.

3.4.4 How would you rank the appropriateness of the following measures in improving the replacement of heating systems, in particular to encourage the replacement of fossil fuel appliances by renewable heating systems?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Heating system replacements should be coordinated with and be part of building renovation whenever there is major renovation of a building or at other trigger points in the life-cycle of a building for carrying out energy efficiency renovations [1].	○	○	◉	○
Building renovation programmes (at national, municipal and district levels) should specifically support the modernisation of heating systems by their replacement with renewable technologies	◉	○	○	○
Energy Performance Certificates and heating system inspections should indicate recommended dates, steps and possible options for renewable heating systems	○	◉	○	○
National building renovation strategies should specifically address the transition from fossil fuel to renewable and climate neutral heating with related investment plans	◉	○	○	○
Fossil fuel heating systems replacement with renewable and other climate neutral ones (like waste heat) should be part of	◉	○	○	○

neighbourhood and district approaches to building renovation and urban renewal programmes				
Information campaigns should also target heating system replacement programmes with appropriate advice and information, including regarding financing and public support opportunities and solutions	◉	○	○	○
Digitalization should give early warnings on the need for repair/maintenance	○	○	○	○

[1] A trigger point could be: a transaction (e.g. the sale, rental or lease of a building, its refinancing, or a change in its use) a renovation (e. g. an already planned wider non-energy-related renovation).

Other? Please specify

3000 character(s) maximum

A remark on the first measure: “Heating system replacements should be coordinated with and be part of building renovation whenever there is major renovation of a building or at other trigger points in the life-cycle of a building for carrying out energy efficiency renovations [1].

This would be preferred:
“Heating system replacements should be coordinated with or be part of building renovation whenever there is major renovation of a building or at other trigger points in the life-cycle of a building for carrying out energy efficiency renovations so far as technically, functionally and economically feasible, and reflecting the results of a cost-optimal calculation, and in so far as this does not negatively affect indoor air quality [1].

An impact assessment would be needed in order to give insight into whether this is of added value and whether the investments are not also made without including this in regulations.

For example in the Netherlands, not all major building renovations include heating system replacements. A renovation is major if 25% or more of the surface of the building envelope undergoes renovation. Energy performance requirements then apply at the level of components of the envelope. At this moment, building owners decide whether to coordinate major renovation of the building with heating system replacements. The economic, technical and functional viability of the current installation, the timeline of the neighborhood approach replacing the fossil fuel heating system with renewable and other climate neutral ones compared to the costs and benefits of a new heating system of the building are important in making the decision to replace the heating system as a part of the major renovation or not. The question arises whether these kinds of investments are taking place in the current situation without additional regulations given the ambition to have a climate neutral building stock in 2050 and minimum energy performance standards of different types of buildings which exist or are being developed.

Plus, the Netherlands is currently developing new standards on the energy efficiency of buildings, both on the level of housing and on utility buildings. These standards will create a framework for isolation requirements and requirements on heating systems and other technical installations. These systems will need to be changed / replaced on the moment that the owner / investor will upgrade the specific building to the new standard, depending on the energy performance level of the existing installations. It will be up to the owner of the building to make a decision about this, as long as he will make sure the building will meet the new standard. Additional technical requirements on installations are not in line with this approach.

3.5 RENEWABLE ENERGY USE IN INDUSTRY

Industry is a big energy user being responsible for 25% of the final energy consumption. However currently there are no specific provisions or targets related to the use of renewable energy for the sector. The Commission's Energy System Integration Strategy and Hydrogen Strategy have however identified industry as an economic sector where rapid progress is required to increase the use of renewable energy, be it through direct use of renewable heat, through electrification, or through the use of renewable and lowcarbon fuels to replace fossil fuels as feedstock and fuel.

3.5.1 Do you think there should be an obligation on industry or certain industrial sectors to use a minimum amount of renewable energy?

- ○ Yes, on industry in general
- ○ Yes, but for specific industries only
- ◉ No

3.5.2 How would you rank the appropriateness of the following additional measures to encourage the use of renewable energy in industry?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Creation of renewables-based industrial parks/clusters	○	◉	○	○
Technical support, including training and skills development, for uptake and integration of renewables in small- and medium-size enterprises	○	◉	○	○
Specific innovation programmes to develop renewables- and electricity based production processes	◉	○	○	○
Energy audits required under the Energy Efficiency Directive should cover renewable energy used by the enterprise	○	○	◉	○
Simplified permitting and administrative support for corporate sourcing of renewables, including for on-site and near-site generation as well as corporate renewable power purchase agreements	○	○	◉	○
Contracts for difference for zero-carbon products and services	○	◉	○	○

Other? Please specify

3000 character(s) maximum

There should be no obligations on industry or industrial sectors. The overall goal is carbon emission reduction. There are already overall renewable energy targets. Renewable energy subtargets for specific sectors make the transition less cost effective, because you decrease the freedom for parties to reduce their emissions in the most cost effective way. There is no overall renewable material goal, maybe a renewable carbon goal for the chemical sector could be interesting. In the end, materials are a form of energy.

However, advancing the amount of renewable energy, that contributes to the main EU CO2 reduction targets, is of paramount importance to deliver sufficient affordable renewable energy supply to the demand-side consumers and industries in the transition towards climate neutrality. In the transition towards an circular and climate neutral economy, all sectors will have to make increasingly use of renewable energy. The question is where to establish a higher renewable target for 2030, as there are interdependencies between supply and demand-sectors that are interdependent on the affordable availability of renewable energy and/or dependent on the demand for renewable energy. Whether this will be stimulated by a potentially higher renewable target for 2030 for specific sectors is questionable. It is however important to think about putting the right incentives in place to stimulate these sectors congruently.

Generally, the focus for industry should not be on renewable energy but on circular use of resources and materials. The energy sector is primarily responsible for the production of sufficient low-carbon energy.

3.6 RENEWABLE ENERGY IN TRANSPORT

Under REDII, each Member State must set an obligation on fuel suppliers to ensure that renewable energy makes up at least 14%[1] of the energy used in that Member State in the transport sector.
The achievement of the target is facilitated by **several multipliers on energy content**:

- a multiplier of 4 for renewable electricity consumed in **road transport**
- a multiplier of 1.5 for renewable electricity consumed in **rail transport**
- a multiplier of 1.2 for renewable fuels consumed in **maritime and aviation transport**
- a multiplier of 2 for advanced **biofuels and biogas**

The impact assessment accompanying the 2030 Climate Target Plan indicates that the share of renewable energy in transport would constitute around 24% in 2030, calculated according to the methodology described above. Both the aviation and maritime sectors will need to scale up efforts to increase the use of sustainably produced renewable and low-carbon fuels. This will be assessed in greater detail in the context of the ReFuelEU Aviation and FuelEU Maritime initiatives.

[1] Member States have the right to lower their target if they set limitations on food and feed-based biofuels going beyond RED II

3.6.1 Do you think that the level of the renewable target in transport should be increased?

- ○ Yes, but less ambitious than indicated in the 2030 Climate Target Plan
- ◉ Yes, as ambitious as indicated in the 2030 Climate Target Plan (24%)
- ○

Yes, but more ambitious than indicated in the 2030 Climate Target Plan (for instance 24% without multipliers)

No

Please explain your reply

3000 character(s) maximum

In the Netherlands the current ambition as set in the national climate agreement (that aims for 49% GHG reduction) for the RED II implementation is comparable to the 24% target, including the use of factors. Therefore, the 24% target supports the current Dutch policy while still leaving flexibility up to the member state if they want to utilize this framework via higher targets in order to achieve the 55% GHG-reduction.

Next to that, the revision should also make fuel suppliers for inland shipping subject of the obligation, since inland shipping and road transport are comparable in needs for sustainability. Also this is more in line with the obligation of the FQD.

3.6.2 Member States can count renewable electricity, sustainable biofuel and biogas, hydrogen produced from renewable electricity (except if such electricity comes from biomass) and recycled carbon fuels[1] towards the 14% target in transport. Do you think Member States should also be able to count other low carbon fuels which have fewer emissions than fossil fuels, such as low carbon hydrogen?

Yes

No

[1] 'recycled carbon fuels' means liquid and gaseous fuels that are produced from liquid or solid waste streams of non-renewable origin which are not suitable for material recovery in accordance with Article 4 of Directive 2008/98/EC, or from waste processing gas and exhaust gas of non-renewable origin which are produced as an unavoidable and unintentional consequence of the production process in industrial installations.

3.6.3 Do you think that some renewable and low carbon fuels should be specifically promoted in transport, beyond being part of the obligation on fuel suppliers ?

Yes

No

3.6.4 If you answered 'yes' to the previous question, which of the following types of renewable and low carbon fuels do you think should be specifically

promoted ? (Multiple answers possible)

- [x] Advanced biofuels and other fuels produced from biological wastes and residues
- [x] Renewable hydrogen and renewable synthetic fuels
- [ ] Low-carbon hydrogen and low carbon synthetic fuels (including through applying CCS techniques)
- [x] Renewable electricity
- [ ] Recycled carbon fuels
- [x] Other

Please specify

3000 character(s) maximum

RFNBO are at this point the furthest away from being commercially attractive. Since the obligation aims to stimulate cost-efficiency, RFNBO will not prevail on the short term. However, stimulating these type of fuels is important for the transition period that transport needs on the path to zero-emission.

Next to that within the category of advanced fuels their could also be a distinction between feedstock that is commercially viable already and feedstock that could be interesting but still needs more stimulants and development.

Also, the RED II should continue to explore ways to further promote renewable electricity for (road)transport, while keeping in mind that this should also lead to emission reductions if used in transport (directly or indirectly).

3.6.5 Which types of renewable and low carbon fuels can be best promoted by an obligation on fuel suppliers, based either on energy content or GHG emissions, compared to other instruments?

- [x] Liquid renewable fuels
- [ ] Liquid low carbon fuel
- [x] Gaseous renewable fuels such as hydrogen
- [ ] Gaseous low carbon fuels such as hydrogen
- [x] Renewable electricity
- [x] Other

Please specify

3000 character(s) maximum

Low-carbon fuels should preferably be promoted in maritime and aviation transport, but not through the RED II for road transport where alternatives via electrification are available next to biofuels.

3.6.6 How would you rate the appropriateness of the following measures regarding the use of renewable and low carbon fuels in transport?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
The scope of fuels that can be counted should be harmonised to ensure that all fuels that are eligible for counting towards the renewable energy target are supported in all Member States	○	◉	○	○
Member States should have flexibility to design the supply obligation using one of the following approaches: in terms of volume, energetic value or GHG emission intensity.	◉	○	○	○
The fuels supply obligation should be based on GHG emissions targets to stimulate the uptake of best performing fuel options on the fuel market	○	◉	○	○
The level of ambition should be fixed at the same level for all Member	○	○	○	◉
States to create a level playing field and avoid market fragmentation	○	○	○	○
The multiplication factors for different types of renewable energy sources should be abolished to simplify the legislation and to increase the ambition level (limitations and sub targets would remain)	○	○	◉	○
Set out specific measures to promote the use of renewable and low carbon fuels in aviation and maritime transport such as dedicated supply obligations, sub-targets or other incentives.[1]	○	○	○	◉

[1] In parallel, the ReFuelEU Aviation and FuelEU Maritime initiatives are assessing legislative options to boost the production and uptake of sustainable fuels in the aviation and maritime sectors.

Other? Please specify

3000 character(s) maximum

Regarding the last question, global operating sectors such as aviation and maritime shipping should become more sustainable via sector specific policies to promote the use of renewable and low carbon fuels in trajectories such as ReFuel Aviation and FuelEU Maritime while taking into account the RED II criteria.

The RED obligation should focus on transport sectors that contribute towards EU specific reduction targets, and as such also to the Paris agreement. Following this logic the obligation for road (and rail) could be expanded towards inland shipping for instance, which would also be in line with the FQD. Lastly, the costs and effort of reaching a sustainability target should as much as possible be placed by the sector and its specific obligations, unless there is a clear rationale that diverting the cost and effort contribute to that specific obligation.

3.6.7 How appropriate do you think the following measures would be in encouraging the use of hydrogen and hydrogen-derived synthetic fuels in transport modes that are difficult to decarbonise?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Include hydrogen and hydrogen-derived synthetic fuels in a dedicated sub-target together with advanced biofuels	○	○	◉	○
Set an additional dedicated sub-target for hydrogen and hydrogen-derived synthetic fuels	○	◉	○	○
Allow double counting of the contribution of hydrogen and hydrogen-derived synthetic fuels towards the transport target or the fuel supplier obligation	◉	○	○	○

Other? Please specify

3000 character(s) maximum

Stimulating hydrogen as stated in the options (sub-target and double counting) above should only applicable for renewable hydrogen.

3.6.8 How would you rank the effectiveness of the following measures in encouraging the use of renewable electricity in the transport sector?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Support the purchase of electric vehicles	○	◉	○	○
Support the installation of electric vehicle chargers in households and enterprises	○	◉	○	○
Set stricter CO2 standards for cars	◉	○	○	○
Ensure the availability and interoperability of public recharging infrastructure	○	◉	○	○

Establish a minimum level of renewable electricity as a part of the target for renewable energy in transport	◉	○	○	○
Giving consumers information on whether they are recharging their electric vehicle with renewable energy	○	◉	○	○

Other? Please specify

3000 character(s) maximum

The questions, except the one about a minimum level of renewable electricity, are outside of the scope of the RED.

3.7 BIOENERGY SUSTAINABILITY

The Biodiversity Strategy[1] acknowledges that, to mitigate climate and environmental risks created by the increasing use of certain sources for bioenergy, REDII already includes strengthened sustainability criteria (to be implemented on the ground starting 1 July 2021 at the latest) and promotes the shift to advanced biofuels. According to the Strategy, the use of whole trees and food and feed crops for energy production should be minimised. Moreover, the Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system[2] contains concrete measures for a sustainable use of biomass. The Commission is continuously assessing the EU and global biomass supply and demand and related sustainability. An ongoing study on the use of forest biomass for energy production is expected to be finalised and published by the end of 2020. This will inform the Commission's policy-making, including the review and revision, where necessary, of the level of ambition of the Renewable Energy Directive.
In order for Member States to count energy from forest biomass towards their renewable energy targets, Article 29 paragraphs 6-7 of REDII requires that the country of origin has laws in place to ensure the legality of harvesting and forest regeneration. If that cannot be shown, sustainability compliance must be shown at the level of the biomass sourcing area (e.g. through forest management certification or equivalent tools)

[1] COM/2020/380 final

[2] COM/2020/381 final

3.7.1 Do you think the sustainability criteria for the production of bioenergy from forest biomass in RED II should be modified? (only one reply possible)

- ◉ Yes, they should be made stricter
- ○ No, they should not be modified

Please explain your reply

3000 character(s) maximum

The sustainability criteria should include criteria on water-use, waste, emissions to air, water and soil, and social issues. But with attention to coherence with other legislation where those issues are (also) treated.

3.7.2 The obligation to fulfil sustainability criteria for biomass and biogas in heat and power applies to bioenergy installations of at least 20 MW for solid biomass and 2 MW for biogas. Should these thresholds be lowered to include smaller installations?

- (●) Yes
- ( ) No

3.7.3 Do you think that there should be limits on the type of feedstock to be used for bioenergy production under REDII?

- ( ) Yes, it should only be possible to use feedstock listed in Part A) of Annex IX of REDII[1] (therefore excluding used cooking oil and animal fats)
- ( ) Yes, it should only be possible to use the feedstock listed in Part A) and Part B) of Annex IX of REDII
- ( ) Yes, it should only be possible to use wastes and residues
- ( ) Yes, it should only be possible to use feedstock that does not have higher added-value in nonenergy sectors
- (●) Yes, in some other way
- ( ) No

Please explain your answer

3000 character(s) maximum

There should not be extra absolute/generic limits on the type of feedstock used, but the directive should: a) strive towards a situation where only feedstock that does not have higher added-value in nonenergy sectors is used; b) at the same time give room for feedstock with a higher added-value in nonenergy sectors to be used for energy applications for which too little alternative sources of energy are available (yet, including category a), and until 2030 also for other applications if that is necessary for a swift transition of those applications towards alternative sources of energy (including category a). This can possibly be achieved by means of sustainability criteria.

3.7.4 Do you think that the minimum GHG emission saving thresholds for biomass in heat and power, currently at 70% for installations starting operation from 2021 and at 80% for installations starting operation from 2026, should be extended and/or made stricter? (multiple answers possible)

- [ ] Yes, by extending them to heat and power installations that started operation before January 2021

- [ ] Yes, by increasing the threshold for GHG emission savings
- [x] No
- [x] Other

Please specify

3000 character(s) maximum

No, they are already designed according to current standards.

3.7.5 Do you think that the energy efficiency requirements applying to bio electricity-only installations (article 29, paragraph 11) should be made more stringent (multiple answers possible)?

- [x] Yes, they should be extended to plants of less than 50 MW total rated thermal input
- [ ] Yes, the energy efficiency requirements should be higher
- [ ] No
- [x] Other

Please specify

3000 character(s) maximum

Bio electricity-only installations should be discouraged as there are ample alternatives, but for those that exist the energy efficiency requirements should be extended to plants of less than 50 MW as most installations do not exceed that size.

Contact

ENER-REDII-REVIEW@ec.europa.eu